

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 40 and 41 are rejected under 35 U.S.C. 102(b) as being anticipated by Cowger et al. US 5,788,388.

Cowger et al. discloses:

**40. A three-dimensional printing system to print a three-dimensional object (*intended use*), the system comprising:**

**one or more printing heads (e.g., Fig. 1 #32);**

**two or more replaceable cartridge apparatuses (e.g., Fig. 1 #12) storing building materials (e.g., *Material or article worked upon does not limit apparatus claims. See MPEP 2115. Furthermore, the ink of Cowger is analogous to Applicant's disclosed "dye" at [0017] of the spec*) in a closed container and connectable via tubes (e.g., Fig. 1 #35) to the one or more printing heads, the cartridge apparatuses providing building materials to said one or more printing heads to print said three-dimensional object (e.g., Fig. 1);**

**two or more sensors that determine the status of building materials in said cartridge apparatuses (e.g., Fig. 3 #80,82, col. 5 lines 57-58: "When the cartridge sensor 80,82 detects the depletion of ink, it signals to the printer to stop"); and**

**a controller** (e.g., Fig. 2 #24) **that receives data from said sensors** (e.g., col. 4 lines 55-65) **and controls switching of building material supply from one replaceable cartridge to another** (e.g., col. 2 line 47 - col. 3 line 2, *color printers control switching of the colors from the various cartridges*).

**41. The system of claim 40, wherein each of said sensors is associated with a respective one of said cartridge apparatuses** (e.g., col. 5 lines 57-58: "When the cartridge sensor 80,82 detects the depletion of ink, it signals to the printer to stop").

***Response to Arguments***

Applicant's arguments, see pages 5-6, filed 09/09/09, with respect to the rejection(s) of claim(s) 40 and 41 under 35 U.S.C. 102(e) as being anticipated by Varnon et al. US 2003/0063138 have been fully considered and are generally persuasive, at least to the extent that the hoppers of Varnon et al. are not "replaceable" and do not have a "closed container" as claimed. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Cowger et al. US 5,788,388.

***Election/Restrictions***

Claims 55-64 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 05/22/08.

Applicant's election of claims 40 and 41 in the reply filed on 11/18/08 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 42-54 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 11/18/08.

***Allowable Subject Matter***

Claim 49 (although withdrawn) is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Although Cowger et al. teaches the valve matrix and tubes of claims 47 and 48, Cowger et al. fails to teach or fairly suggest the system of claim 47, wherein upon lowering of the level of said building material in any one of said two or more cartridge apparatuses to a pre-determined amount, said valve matrix is adapted to automatically switch material sources, as recited in claim 49, in combination with the remaining features and elements of the claimed invention.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan A. Jarrett whose telephone number is (571) 272-3742. The examiner can normally be reached on 10:00-6:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ryan A. Jarrett/  
Primary Examiner, Art Unit 2121

10/22/09